FIG. 1

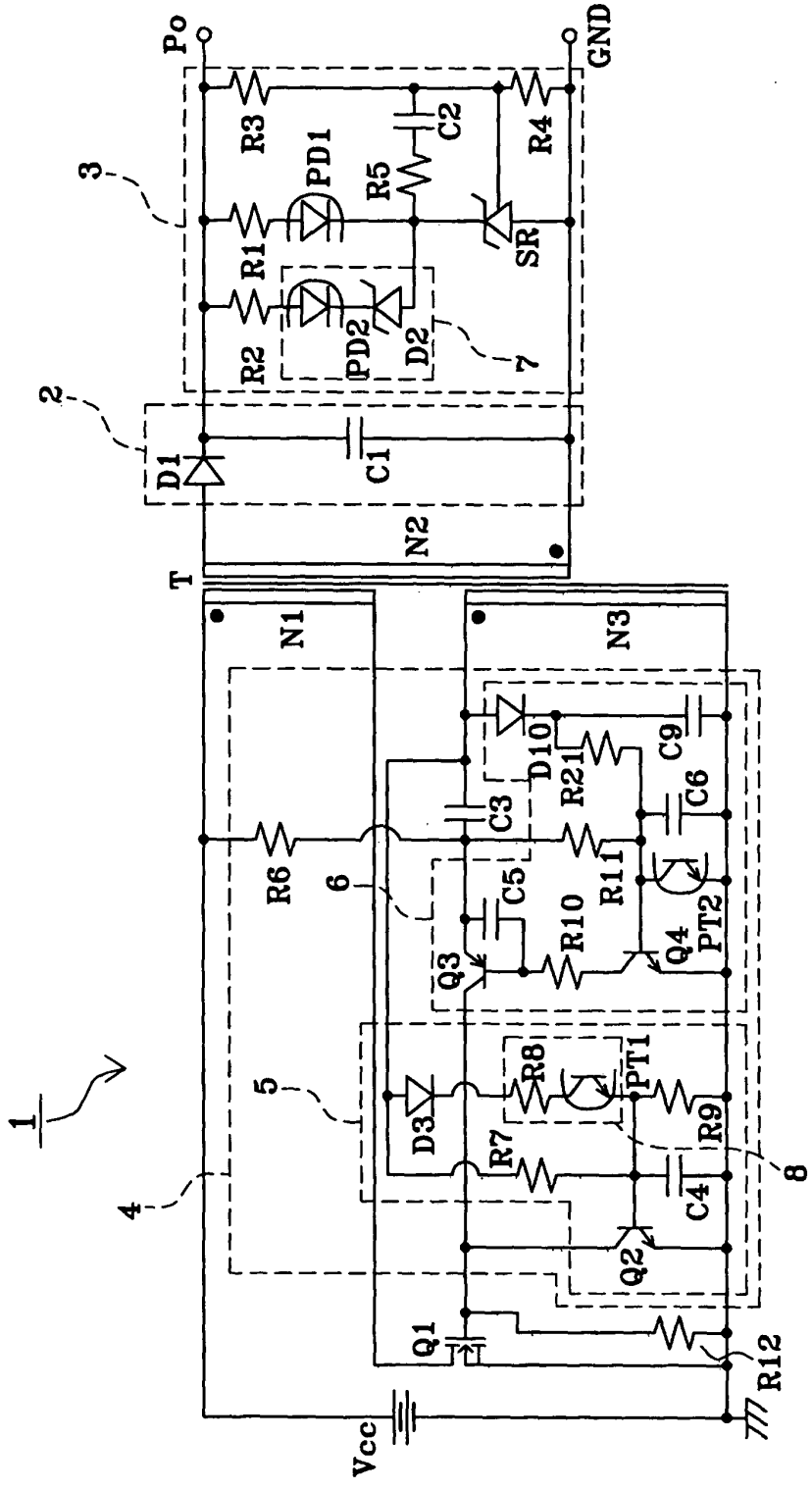
Po
GND
R3
PD1
R5
C2
R4
3
R1
SR
R2
PD2
D2
7
2
D1
C1
N2
T
N1
N3
D10
R21
C9
C3
C6
R6
6
C5
R11
R10
Q3
Q4
PT2
5
R8
PT1
D3
R7
R9
8
C4
4
Q2
Q1
R12
Vcc
1

FIG. 2A

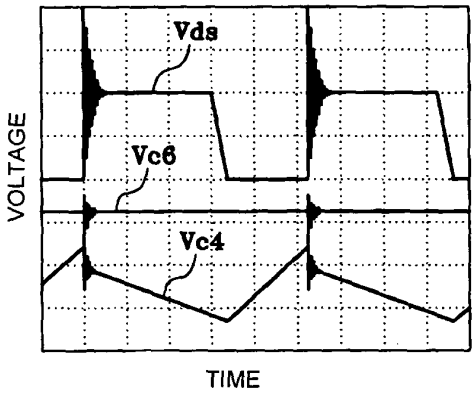

FIG. 2B

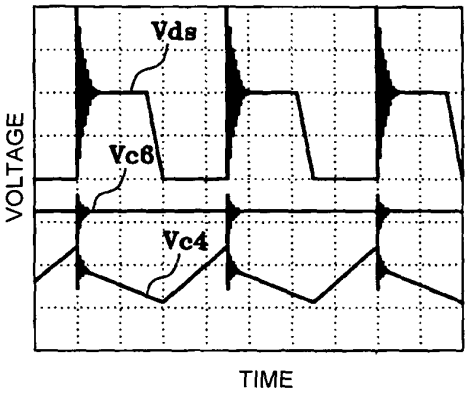

FIG. 2C

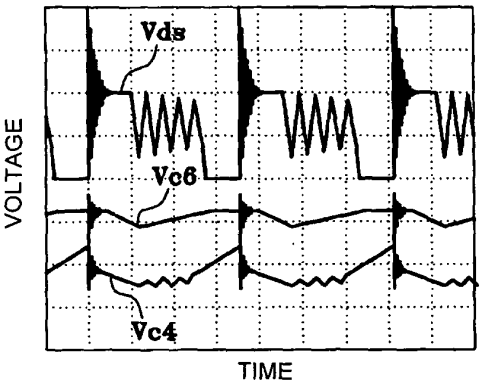

FIG. 2D

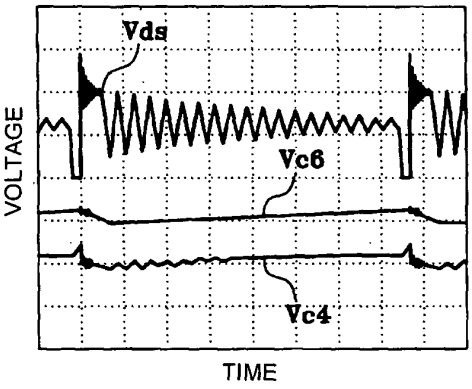

FIG. 3

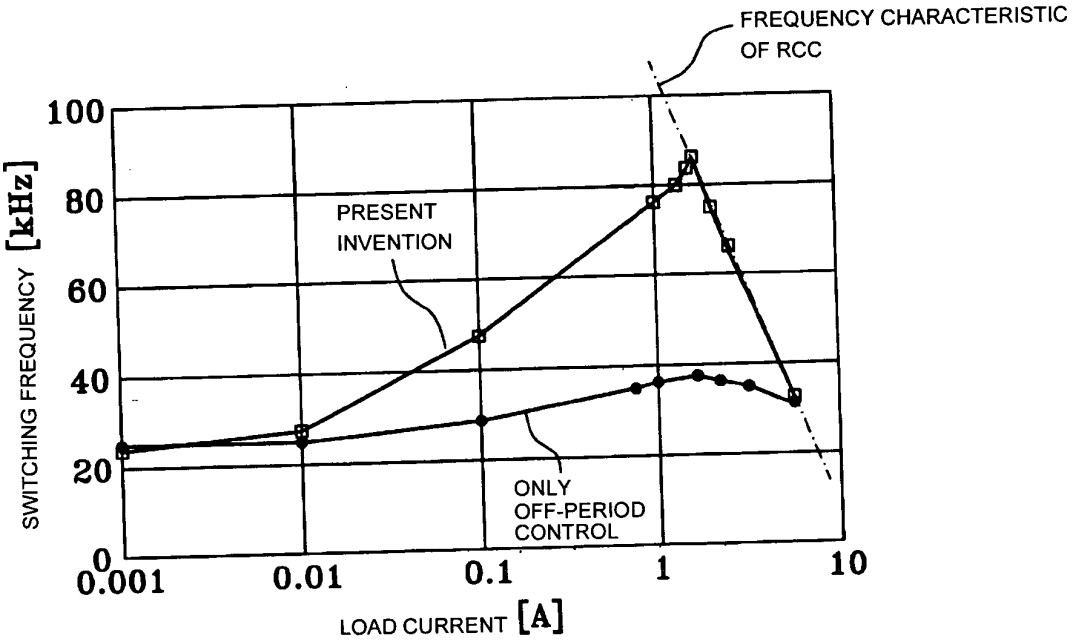
FREQUENCY CHARACTERISTIC
OF RCC
100
80
60
40
20
0
SWITCHING FREQUENCY [kHz]
PRESENT
INVENTION
ONLY
OFF-PERIOD
CONTROL
0.001
0.01
0.1
1
10
LOAD CURRENT [A]

FIG. 4

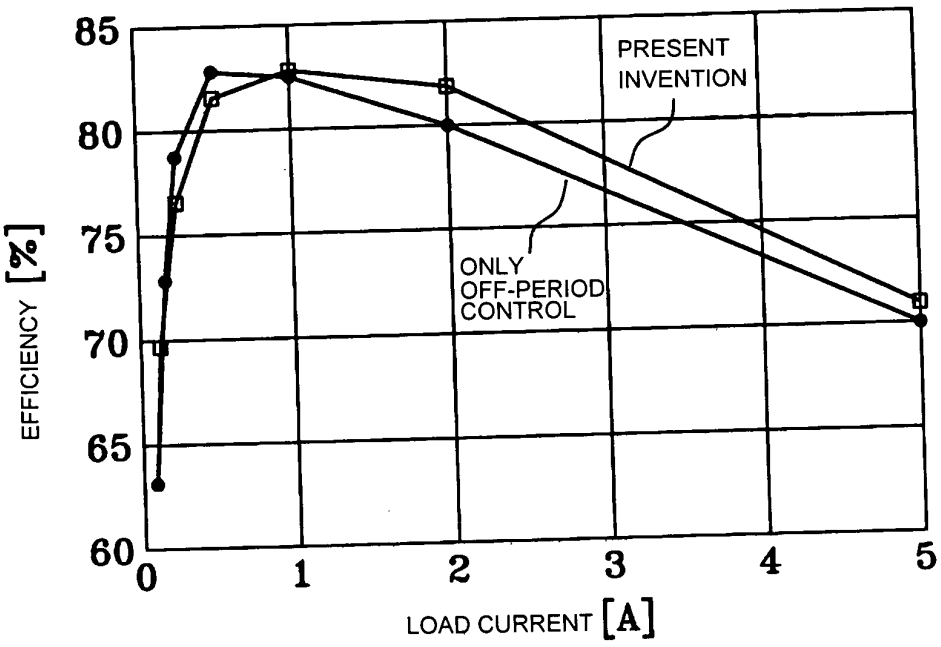
85
80
75
70
65
60
0
1
2
3
4
5
EFFICIENCY [%]
LOAD CURRENT [A]
PRESENT INVENTION
ONLY OFF-PERIOD CONTROL

FIG. 5

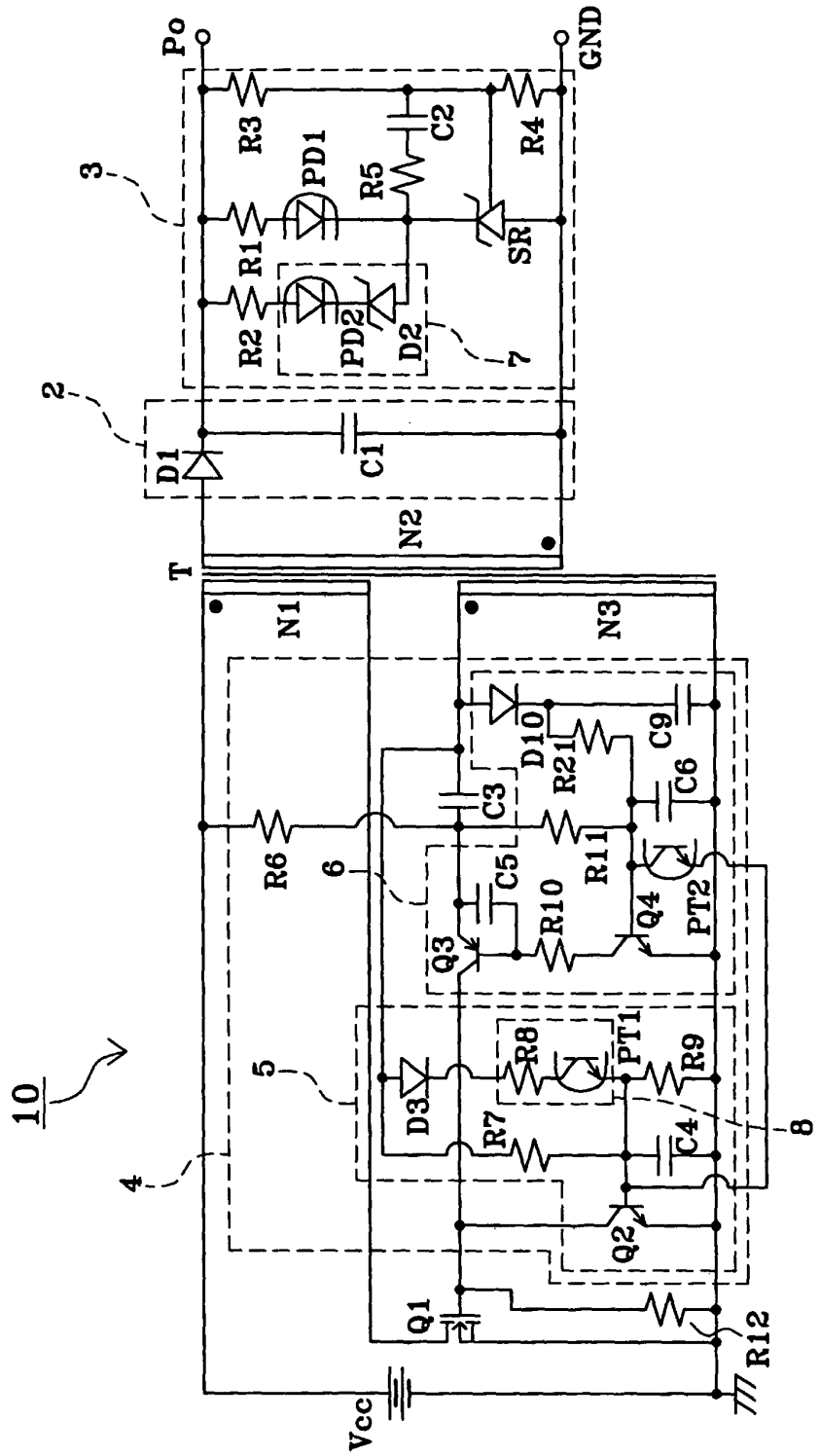
Po
GND
R3
PD1
C2
R4
3
R5
R1
SR
R2
PD2
D2
7
2
D1
C1
N2
T
N1
N3
D10
R21
C9
C6
C3
R6
6
R11
C5
R10
Q4
PT2
Q3
10
5
PT1
R8
R9
D3
R7
C4
8
4
Q2
Q1
R12
Vcc

FIG. 6

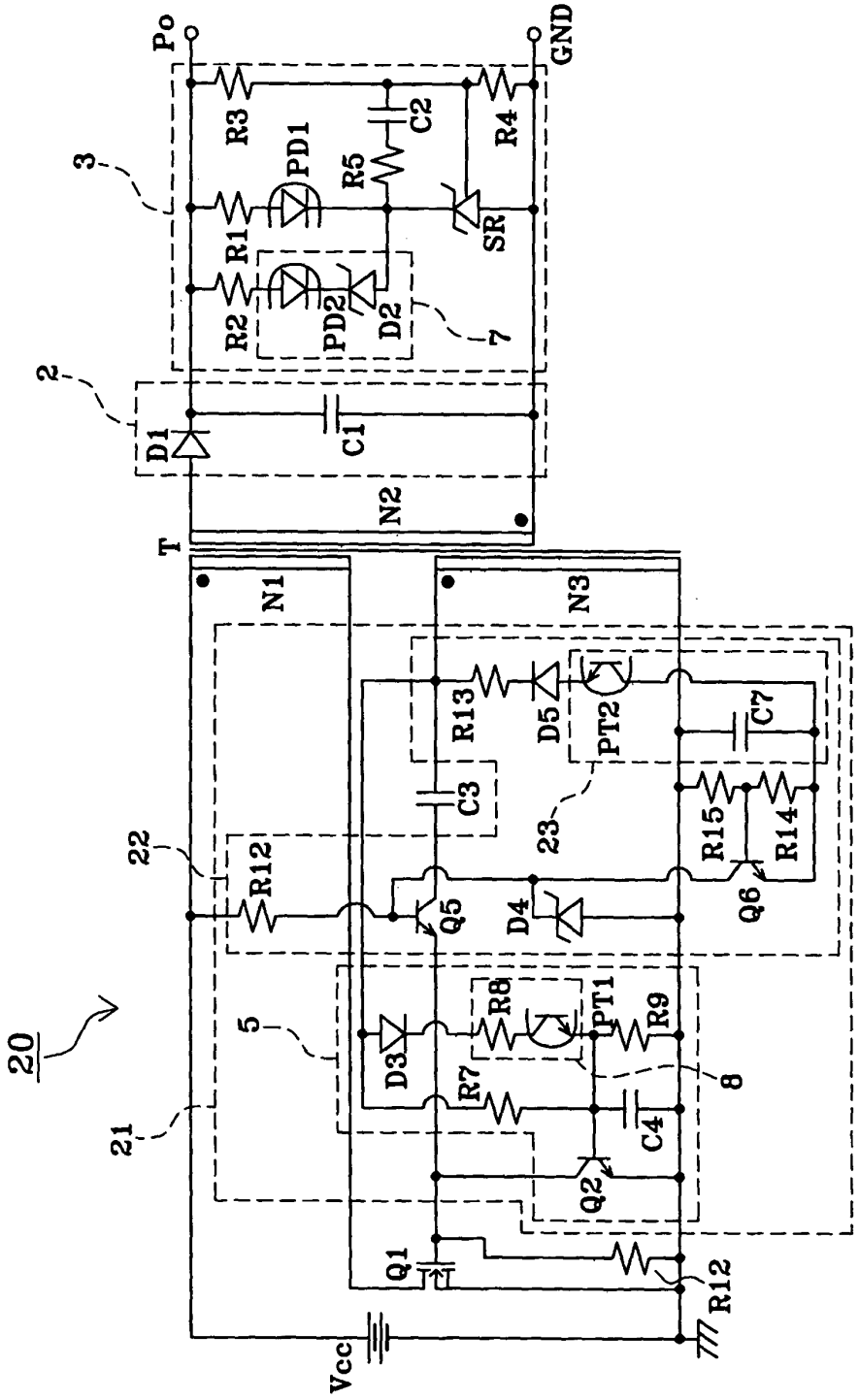
Po
GND
R3
PD1
C2
R4
R5
R1
SR
R2
PD2
D2
7
3
2
D1
C1
N2
T
N1
N3
R13
D5
PT2
C7
C3
23
R15
R14
22
R12
Q5
D4
Q6
20
5
D3
R8
PT1
R9
R7
8
C4
21
Q2
Q1
R12
Vcc

FIG. 7

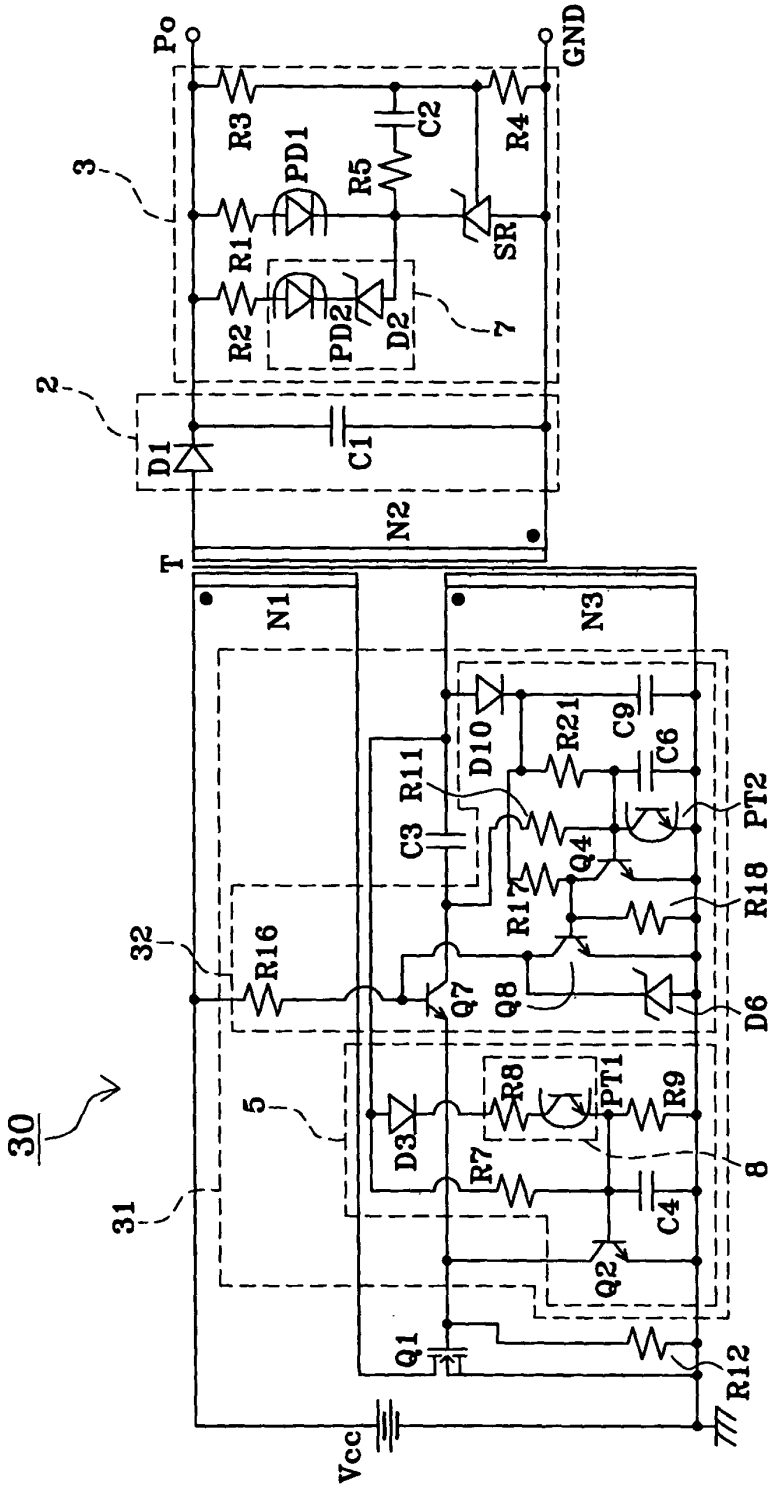
Po
GND
R3
PD1
C2
R4
R5
3
R1
SR
R2
PD2
D2
7
2
D1
C1
N2
T
N1
N3
D10
R21
C9
C6
R11
C3
PT2
Q4
R17
R18
32
R16
Q7
Q8
D6
30
5
R8
PT1
R9
D3
R7
C4
8
31
Q2
Q1
R12
Vcc

FIG. 8

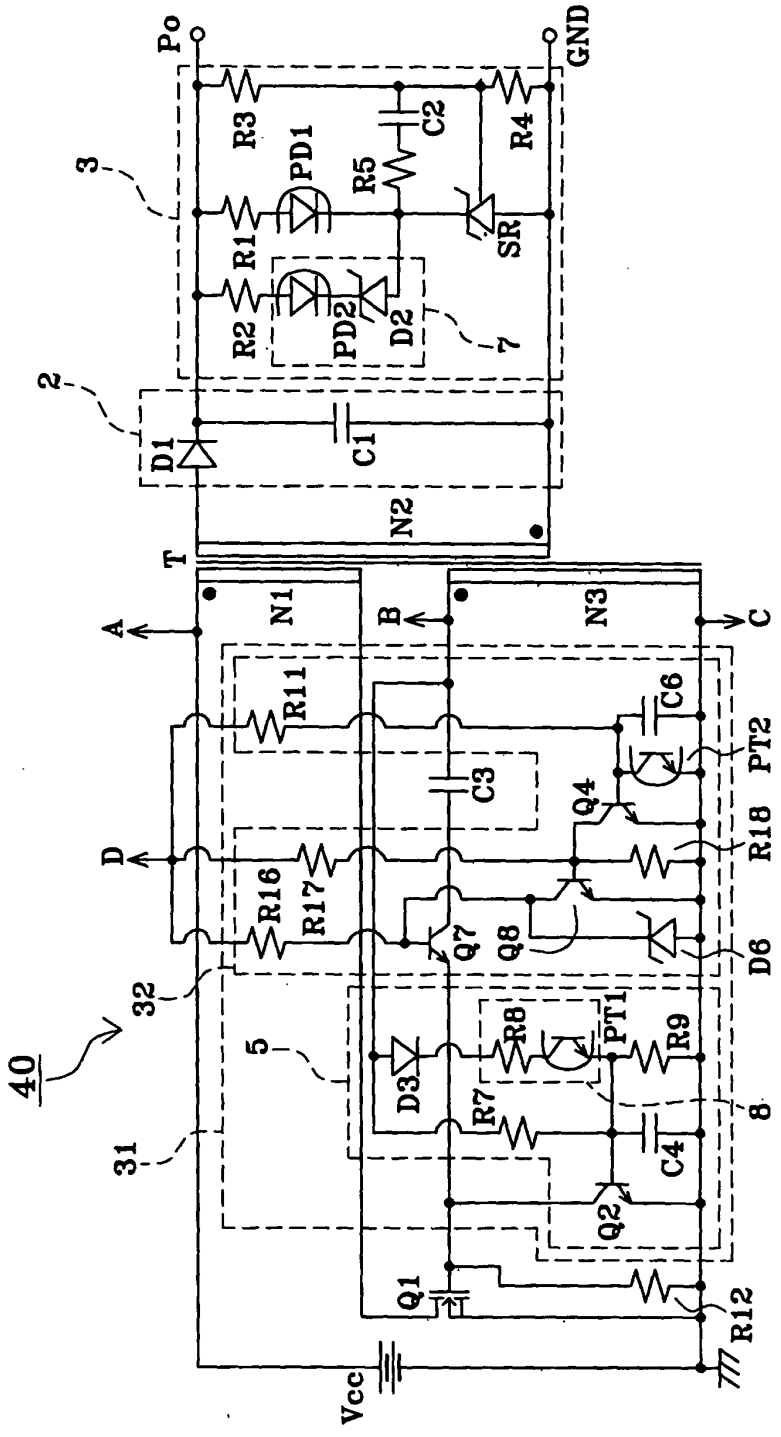
Po
GND
R3
PD1
R5
C2
R4
3
R1
SR
R2
PD2
D2
7
2
D1
C1
N2
T
A
N1
B
N3
C
R11
C6
PT2
C3
Q4
R18
D
R16
R17
Q7
Q8
D6
32
40
5
R8
PT1
R9
D3
R7
8
31
C4
Q2
Q1
R12
Vcc

FIG. 9

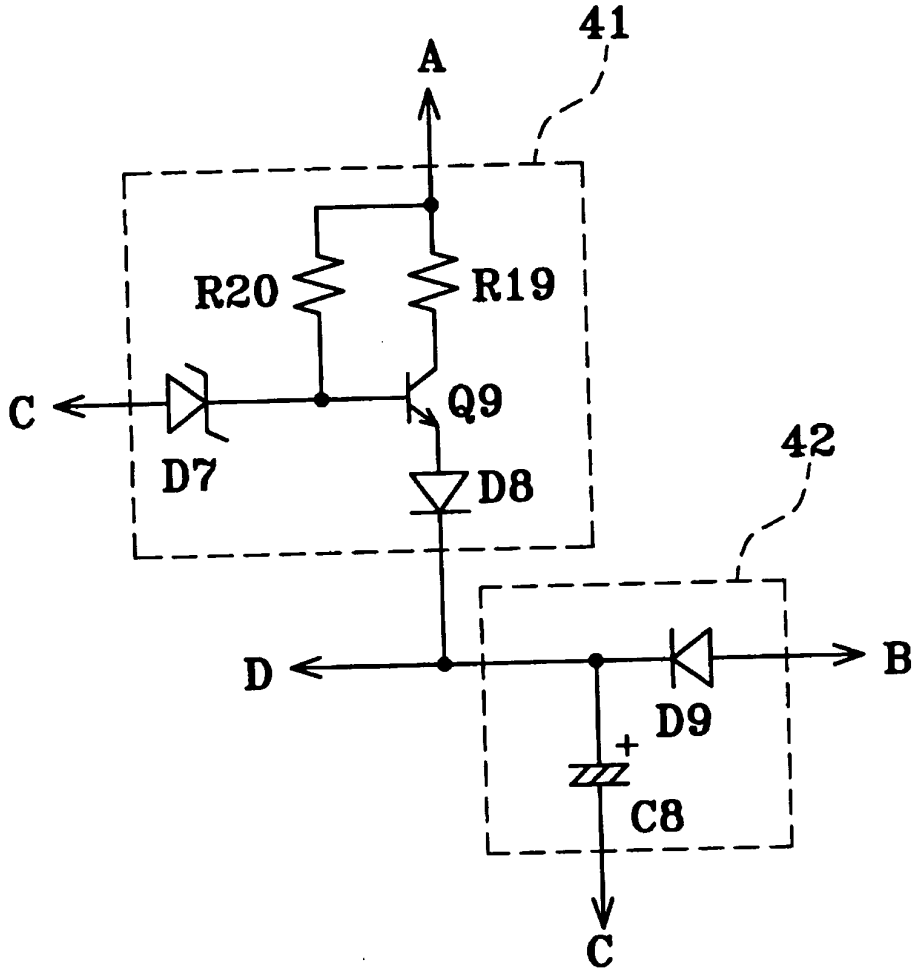

FIG. 10

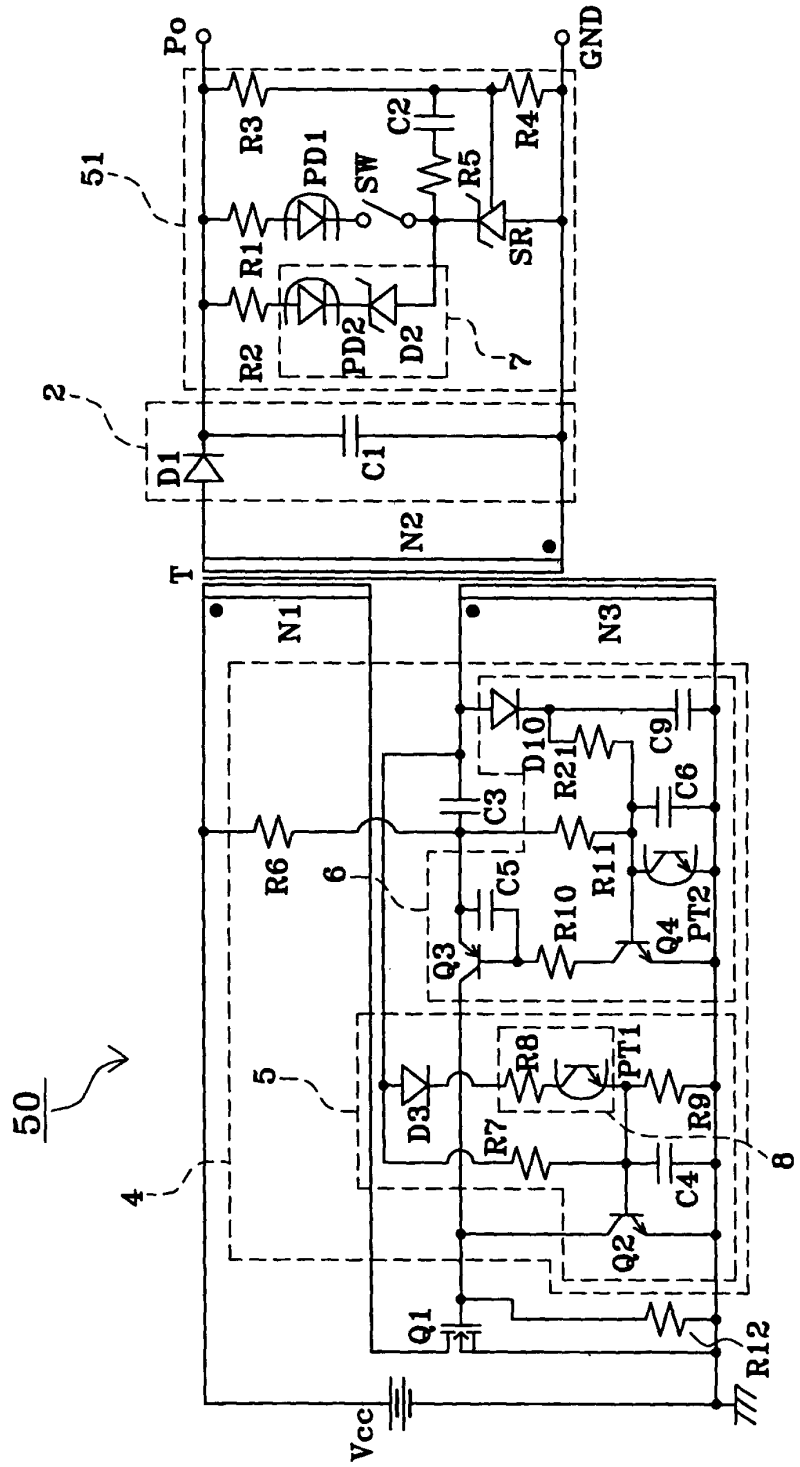
Po
GND
R3
PD1
SW
C2
R5
R4
51
R1
SR
R2
PD2
D2
7
2
D1
C1
N2
T
N1
N3
D10
R21
C9
C3
C6
R6
6
C5
R11
R10
Q3
Q4
PT2
50
5
R8
PT1
D3
R7
R9
8
4
C4
Q2
Q1
R12
Vcc

FIG. 11